P&SN Police and Security News

Serving Law Enforcement & Homeland Security

JULY/AUGUST 2025
VOLUME 41 ISSUE 4

Teaching Female Officers to Shoot:

What Many Instructors Get Wrong

2025 Ballistic Armor Report: Innovations and Emerging Protective Solutions

How Circular Logic Undermines Police Investigations

Top-Tier Gear for SWAT and Tactical Ops

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ON THE COVER

The July/August 2025 issue features a striking cover image of a focused female officer on a shooting range. This article challenges traditional, one-size-fits-all firearms training by spotlighting key differences in how women – and some men – learn best. The piece ultimately calls for more thoughtful, individualized teaching approaches in law enforcement firearms training. Cover photo by Glen Hoyer.

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...AND NOTHING BUT THE TRUTH

RAMESH NYBERG

There's something happening here...
what it is ain't exactly clear
There's a man with a gun over there,
telling me I got to beware...

"For What It's Worth (Stop, Hey What's That Sound)" – Buffalo Springfield, 1967

If any profession can consistently claim the phrase "damned if you do and damned if you don't" as their own, it's we in law enforcement.

A year and a half ago, I published my memoir and one of the main reasons I wrote the book was to draw back the curtain for the public and show them some of the things they'll never see depicted in Hollywood or on social media. I wanted them to not only see cops as human beings (not uniforms) and provide them with insight about how we do things in police work, but also *how it feels* for us when we do them. After all, not all of us are the same. We have our lives in our homes with our families and then we put on the uniform or cinch up our tie and business clothes (as I did in homicide for 22 years) and become part of a different family.

I don't remember caring about what my colleagues' political persuasions or personal affectations were. None of us had time for that. We had to rely on each other for our lives, so there was a silent acceptance of everyone, even the ones who acted like alpha-hotels from time to time. In 27 years of police work in South Florida, I rode patrol with fellow officers of every color, political party, ethnic background, gay and straight, and from every Latin American and Caribbean country in existence. I worked with officers who indeed were immigrants. We did raids together; fought with people; got shot at together; had rocks, bottles and blenders (yes…see my book for that story) thrown at us and we all had a common goal: control our streets, protect our citizens from the criminal element and have each other's backs. I didn't care – and still don't – about who you voted for, where you were from, or who you rolled around under the sheets with. That's in your hands.

The public, however, sees us differently. They just see the badge and nothing else. As we well know, when there's a bad shooting, we're all a bunch of trigger-happy goons. When there's a corrupt cop, we're all crooks. And, now, just as it has been with every effort to do our jobs in an environment of civil unrest, we're the bad guys with the riot helmets and shields; we're the arm of the big bad oppressive government. The public doesn't even care to make the effort to understand that, when we go to roll call and are given an assignment, we head out and obey our orders without any discussion about politics. And, for the record, to any non-law enforcement people who might be reading this, going out and making sure the streets are not blocked is *not* an unlawful order – it's our duty. (A thought just came to me. If you have a member of your family or a friend who constantly criticizes the police for doing their job, I urge you to share this column with them.)

You and I, my brothers and sisters, all know the difference between a protestor and a rioter. Protestors do things peacefully. Protestors, when told by a police officer to move off the street, do so immediately. But what happens on the field force line? There's always a few – well, more like a crowd – who decide they are going to break the law and refuse to move and, as soon as we do our duty and fulfill the oath we took, we become the enemy. Again, for civilians who might be reading this: When you peacefully walk the sidewalk or a designated area to protest, it doesn't matter what you say. You can wave any flag you want, wear any T-shirt you want, and scream any insult you want about anyone. The police aren't going out and looking for people to arrest because of what they are saying. We don't care. In fact – I can say with certainty – some of the hearts beating within those riot uniforms *share your viewpoints* and emotions about politics, about immigration, about whatever the cause may be. They might be on your side. When you look over and see that line of scary-looking, military style cops in formation, know this: None of them want to be there. It's scarier for them than it is for you. You chose to be there; they didn't. You can run away; they can't. Know this as well: In spite of whether we might be sympathetic to your cause or not, the moment you pick up a rock and throw it at a cop, *you become a felon*. It's that simple.

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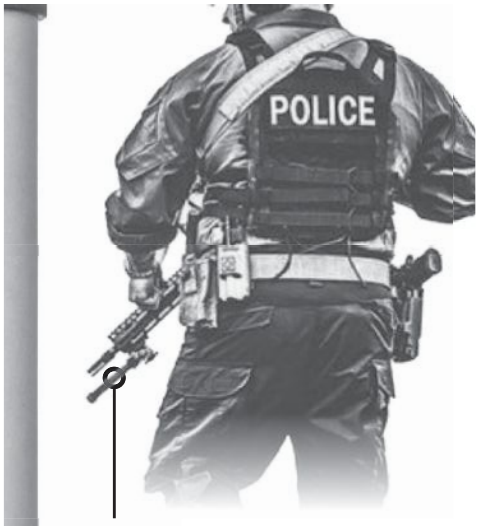

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...AND NOTHING BUT THE TRUTH

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The moment you shove a police officer or even refuse a lawful order to clear the street, you have broken the law and what you believe in, your identity, your words – and whether I agree with you or not – all end up swirling down the sink of irrelevance. You are now a lawbreaker.

This isn't our first rodeo by any means and it won't be our last. A couple of years back, I wrote about the nationwide riots of 1968, fomented primarily by the protest of the Vietnam War. Compared to the current protests about ICE and immigration, those riots were significantly more violent and deadly. The police in that era were not as well trained or equipped as we are today, but the same dynamic existed. You don't think that, within the ranks of those cops, there were some who had lost family members in Vietnam and were against the war, too? But, like today, they suited up and did a job which no one else would be willing to do for the peanuts they were paid. I'm not going to be so naïve as to suggest that there wasn't unnecessary brutality during that era. There definitely was. That's going to happen – today as well – because those aren't robots wearing those uniforms; those are people with emotions. Throw in long hours in hot uniforms and, when you throw a brick or a bag of feces at one of them, there's a good likelihood that the response will be with a baton, and your head's going to take a hit. Call it brutality, if you want, but the fact remains that it is a normal human reaction to being attacked.

Today, even with the enhanced equipment and tactics we have, the job of controlling civil unrest is more complex. We are well aware of the social media tactics. We've seen them in riot situations for the last three decades: A member of your group shoves a cop or throws a water bottle at one of them. *That* is when you turn on your video and capture law enforcement's reaction and that's the segment of the video which makes it onto your cherished X/Twitter or TikTok account. We know the strategy well, but we're going to do our job anyway. Just like in 1968, the cops in those uniforms are hot and tired and they have emotions, too. You can only push someone so much and then they can easily forget about things like "restraint." At that point, it doesn't matter whether or not I agree with what's said on the sign you carry.

We are also well aware of the Monday morning quarterbacking. If we had *not* properly controlled the streets so that traffic can get through, and if we had not contained the crowd and allowed widespread damage and looting, then we were to blame. We shirked our duty. We were incompetent.

So, yes, my brothers and sisters in blue and brown (my old department), we truly are damned if we do and damned if we don't. Own it. It's part of what we do. I've been off the job now for 18 years and you'll notice I still say "we" when I talk about law enforcement. That's because I salute all of you and I have a spot in my heart – as a civilian now – which empathizes with what you're going through. You got into this profession for the right reasons. Hold down the fort. Support one another and always have each other's backs.

For what it's worth, I've got yours. **P&SN**

Ramesh Nyberg retired from law enforcement in November 2006 after 27 years of police work. He lives in Miami and teaches criminal justice at a local high school. He also teaches regional law enforcement courses through Training Force, USA. He enjoys getting feedback from readers and can be reached at ramesh.nyberg@gmail.com. Also, Ram has written a new book, Badge, Tie and Gun: Life and Death Journeys of a Miami Detective, *which is available on Amazon in both Kindle eBook and paperback. You can find it by visiting* ***amazon.com/dp/B0CTQQKQTV***

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FOCUS ON TECHNOLOGY

SWAT/TACTICAL EQUIPMENT

New Kuna™ 9mm Pistol

Springfield Armory® has announced the launch of the **Kuna 9mm pistol**, built around a roller delayed operating system for enhanced durability and reduced recoil. This system eliminates the need for a heavy bolt or gas system by using a roller to temporarily lock the bolt into battery.

The **Kuna** features a monolithic aluminum upper with M-LOK® slots and a fixed, cold radial hammer-forged, six inch barrel for strength and accuracy. The barrel has a Melonite™ finish, a ½ x 28 threaded muzzle and a multiport brake.

Fully ambidextrous, the **Kuna** includes a folding, non-reciprocating charging handle and ambidextrous safety, magazine and bolt release controls. It feeds from translucent 30 round magazines with metal feed lips for durability and visual round count, and ships with two magazines.

Additional features include an AR-pattern pistol grip with Adaptive Grip Texture and hybrid flip-up metal sights which switch between a precision aperture system and a white dot/U-notch configuration.

springfield-armory.com

New Enclosed Emitter Optic

The new **Osight SE** is an enclosed optic designed for versatility and precision. Built with a 7075 aluminum housing and a side-loading replaceable battery, it features an aspherical lens which ensures zero distortion and parallax-free performance, offering exceptional clarity through a large window for rapid and precise target acquisition.

Its 2 MOA dot and 32 MOA circle reticle can be toggled between dot only, circle only, or a combined dot and circle configuration to suit various shooting scenarios. With ten brightness settings – eight for daylight and two for night vision – it adapts easily to any lighting condition.

A built-in motion sensor automatically activates illumination with the slightest movement and powers down after three minutes of inactivity to conserve battery life. The optic also includes a low power indicator for quick battery status alerts. Featuring an ultralow deck height for co-witnessing with most factory iron sights and an RMSc footprint, the **Osight SE** is ready for direct mounting on optics-ready slides.

hldalis.com

Tactical Drone System

The **LEMUR 2** from BRINC is a next-generation tactical drone engineered specifically for law enforcement and emergency response. Designed for indoor and GPS-denied environments, it features advanced autonomy powered by LiDAR and multiple cameras to generate real-time 3D maps and maintain stable flight in total darkness or confined spaces. Key tools include thermal imaging, IR spotlights and a two-way audio system, allowing operators to see, communicate and navigate without entering dangerous areas. With a flight time of about 20 minutes and perch capability of up to six hours, it excels in sustained operations and crisis scenarios.

The **LEMUR 2** includes a carbon-fiber reinforced frame, a glass breaker for window entry and a payload dropper. It supports LTE and mesh communications for secure, extended range video streaming through BRINC LiveOps. The **LEMUR 2** offers improved computing power, louder audio, better antennas, and USB-C fast charging, making it a vital tool for gaining rapid situational awareness while keeping personnel out of harm's way.

brincdrones.com/lemur-2

New Atlas Adjustable Leg Extensions (A.L.E.)

In response to customer demand for a taller Atlas Bipod, Accu-Shot developed the **BT85 Atlas Adjustable Leg Extensions** – engineered for enhanced height versatility.

Compatible with the V8, PSR and CAL series, these extensions offer nine height settings within a 7.125" to 12.0" elevation range. They're also stackable for even greater height, adapting easily to seated, kneeling or high angle prone shooting positions.

Weighing just 7.520 ounces, the **A.L.E.** is built for hard use. Added height can introduce flex and load, but precision machining, tight tolerances and premium materials ensure strength and stability.

With a nonrotating leg design and stainless-steel spring plunger for quick field installation or removal, the **A.L.E.** balances performance and convenience. Machined from 6061-T6 aluminum and finished with Mil-Spec Type III hard coat anodizing, they are sold in black as a pair.

accu-shot.com

Forcible Entry Tool T1

The **Holmatro Forcible Entry Tool T1**, available from Safeware, Inc., is a compact, all-in-one hydraulic tool engineered specifically for forcible entry applications. Capable of performing six functions – hammering, cutting, spreading, lifting, wedging, and ramming – the **T1** eliminates the need for multiple tools, saving both space and weight in tactical vehicles. Its hydraulic cutting and spreading mechanism delivers exceptional force – up to 14.2 tons of cutting and 3.4 tons of spreading – without requiring batteries or an external pump, making it a true stand-alone solution. The tool can easily cut through rebar, chains and padlocks, handling round bars up to 0.7 inches thick. Designed for efficiency, it features a detachable wedge for solo operation when creating an initial gap and includes replaceable cutting blades for long-term use.

safewareinc.com

Mission-driven Respiratory Protection

Avon Protection's **MITR™ System** bridges the gap between single use masks and full-face respirators, offering scalable protection for low- to mid-level threat environments. Its modular design ensures adaptability across a range of operational demands. Compact, concealable and lightweight, the **MITR** is ideal for swift deployment in tactical scenarios – from routine patrols to high-risk interventions. It fits easily into a gear pouch or cargo pocket for easy storage and features an integrated retention system for quick donning and doffing. The design allows it to be worn without removing other protective equipment and quick-clip helmet integration further enhances its readiness for immediate use.

avon-protection.com/products/mitr-m1/

590M® Breacher Professional Series

The **Mossberg 590M Breacher Professional Series** is a 12-gauge, 2.75 inch pump-action shotgun built for compact breaching scenarios. It's the first production shotgun with a double-stack, detachable magazine, offering improved balance, capacity and weight distribution. It features an 11.5 inch heavy walled, standoff barrel with an integrally machined cylinder bore for added strength, along with Mossberg's AfterShock™ bird's head grip to reduce recoil and ensure control. A Cerakote® tungsten finish provides enhanced corrosion and abrasion resistance. The oversized, ambidextrous, top-mounted safety includes a highly visible red indicator and the compact forend incorporates M-LOK® compatible slots for accessory mounting. The magazines come in five, ten, 15, and 20 round options and are built with hardened steel feed lips, steel shell ramps, a self-lubricating polymer body, an anti-cant follower, and a removable floor plate for easy maintenance.

mossberg.com

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The **TR-1 Breaching Ram/Halligan Truck Mounting Bracket**, from JN Tactical, was designed to secure your breaching tools either in a horizontal or vertical mounting application. The **mounting bracket** can be mounted in a horizontal configuration in a patrol vehicle, on top of an equipment box or in the trunk. The **mounting bracket** is equipped with a PacTool mount which secures both tools and provides protection up to 9G of force in the event of a rollover. The mount includes a bottom mounting plate and safety cable. It is made from formed and welded steel, then primed and powder-coated for a durable long-lasting finish.

jntactical.com

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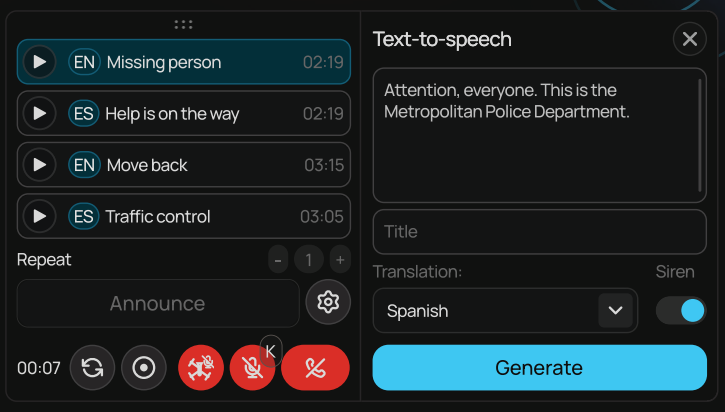

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LEGAL UPDATE

Supreme Court Rejects the "Moment of Threat" Rule

LARRY E. HOLTZ, ESQ.

In *Barnes v. Felix,* 605 U.S. ___ (5/15/2025), the United States Supreme Court determined that, in assessing whether an officer acted reasonably in using force, a court may not simply consider the precise moment of the threat. According to the Court, the "moment-of-threat" rule improperly narrows the proper Fourth Amendment analysis. "To assess whether an officer acted reasonably in using force, a court must consider all the relevant circumstances, including facts and events leading up to the climactic moment."

The facts of the case unfolded in late April when Officer Roberto Felix, Jr. was patrolling a highway outside Houston when he received a radio alert about an automobile on the road with outstanding toll violations. The officer spotted the car, a Toyota® Corolla, and initiated a traffic stop. The driver, Ashtian Barnes, pulled over to the highway's shoulder. Officer Felix approached the driver's side door and asked Barnes for his driving credentials. "Barnes replied that he did not have his license with him and that the car was a rental in his girlfriend's name. As he spoke, Barnes rummaged through some papers inside the car, causing Felix to tell him several times to stop 'digging around.' Felix also commented that he smelled marijuana and asked if there was anything in the car he should know about. Barnes responded that he might have some identification in the trunk. So, Felix told him to open the trunk from his seat. Barnes did so, while also turning off the ignition. All that happened (as a dashcam recording of the incident shows) in less than two minutes."

"Then things began moving even faster. With his right hand resting on his holster, Felix told Barnes to get out of the car. Barnes opened the door, but did not exit; instead, he turned the ignition back on. Felix unholstered his gun and, as the car began to move forward, jumped onto its doorsill. He twice shouted, 'Don't f---ing move.' And, with no visibility into the car (because his head was above the roof), he fired two quick shots inside. Barnes was hit, but managed to stop the car. Felix then radioed for backup. By the time it arrived, Barnes was dead. All told, about five seconds elapsed between when the car started moving and when it stopped. And, within that period, two seconds passed between the moment Felix stepped on the doorsill and the moment he fired his first shot."

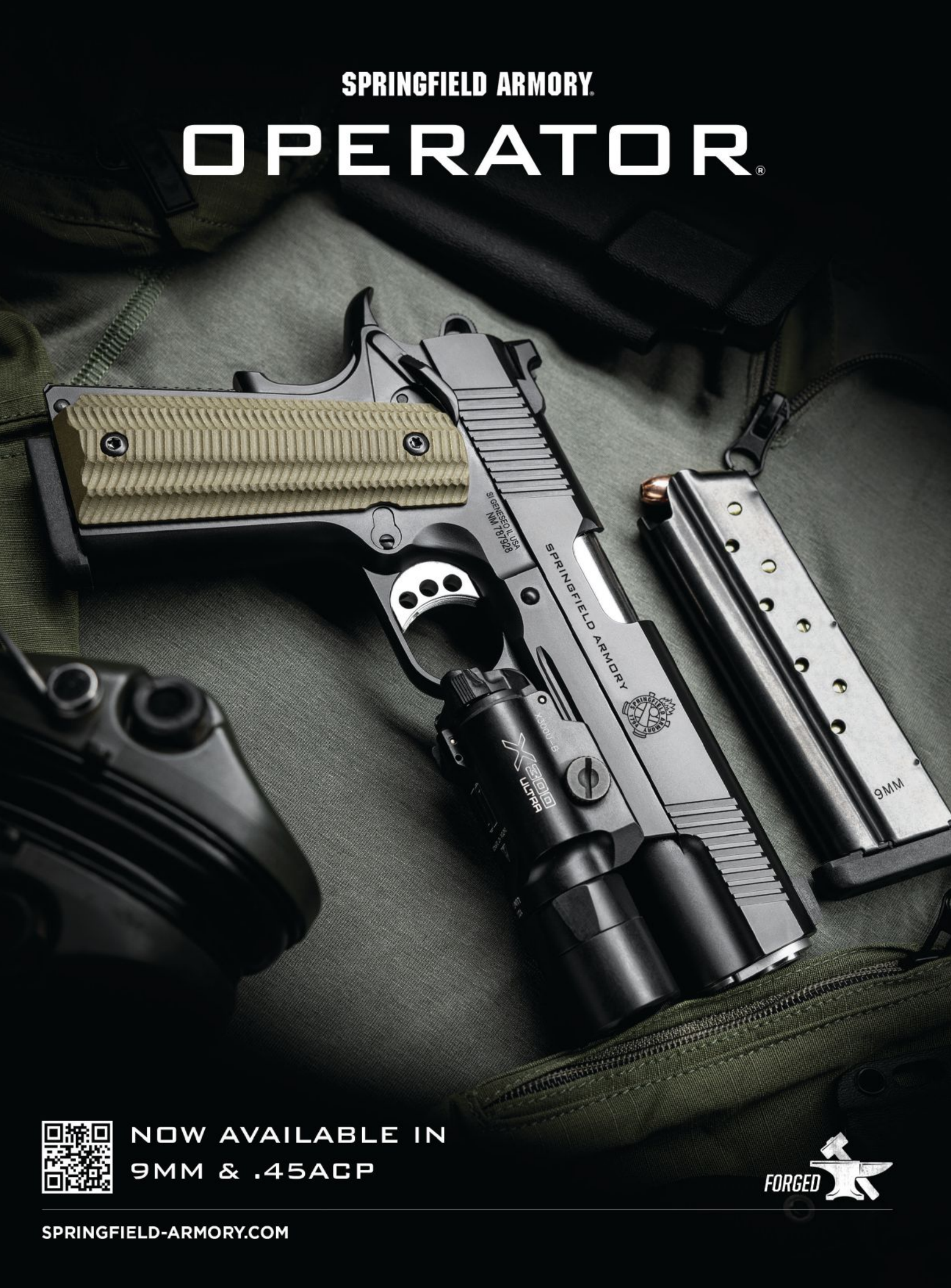
Barnes's mother sued Felix on her son's behalf. The suit, brought under 42 *U.S.C.* §1983, alleged that Felix had violated Barnes's Fourth Amendment rights by using excessive force against him.

"A police officer's use of deadly force violates the Fourth Amendment when it is not 'objectively reasonable.' … And that inquiry into reasonableness…requires assessing the 'totality of the circumstances.'"

"The question here is whether that framework permits courts, in evaluating a police shooting (or other use of force), to apply the so-called moment-of-threat rule used in the courts below. Under that rule, a court looks only to the circumstances existing at the precise time an officer perceived the threat inducing him to shoot." In the court below, the Fifth Circuit determined that the assessment inquiry is confined to whether the officer was "in danger at the moment of the threat that resulted in [his] use of deadly force." According to that court, any prior events "leading up to the shooting," including actions the officer took, were simply "not relevant." Here, the lower courts found that the "precise moment of the threat" was the "two seconds" when Felix was clinging to a moving car. Because Felix could then have reasonably believed his life in danger, the lower courts concluded, his decision to shoot "did not violate Barnes's constitutional rights." *The United States Supreme Court disagreed.*

In this case, the United States Supreme Court rejected the moment-of-threat rule "as improperly narrowing the requisite Fourth Amendment analysis. To assess whether an officer acted reasonably in using force, a court must consider all the relevant circumstances, including facts and events leading up to the climactic moment."

It is important to note that under the "totality of the circumstances," the "inquiry into a use of force has no time limit. Of course, the situation at the precise time of the shooting will often be what matters most; it is, after all, the officer's choice in that moment that is under review. How-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ever, earlier facts and circumstances may bear on how a reasonable officer would have understood and responded to later ones… [T]hose later, 'in-the-moment' facts 'cannot be hermetically sealed off from the context in which they arose.' Taking account of that context may benefit either part in an excessive force case. Prior events may show, for example, why a reasonable officer would have perceived otherwise ambiguous conduct of a suspect as threatening. Or, instead, they may show why such an officer would have perceived the same conduct as innocuous. The history of the interaction, as well as other past circumstances known to the officer, thus may inform the reasonableness of the use of force."

The moment-of-threat rule applied in the courts below conflicts with the Supreme Court's instruction to analyze the totality of the circumstances. "Recall that the District Court and Fifth Circuit limited their view to the two seconds before the shooting, after Felix had stepped onto the doorsill of Barnes's car. Those courts believed that, under Fifth Circuit precedent, they could not take into account anything preceding that final moment. … So, for example, they could not consider the reasons for the stop or the earlier conduct of, and interactions between, the suspect and officer. And, because of that limit, they could not address whether the final two seconds of the encounter would look different if set within a longer timeframe… [Indeed,] some of those facts may not be relevant at all. But, no rule that precludes consideration of prior events in assessing a police shooting is reconcilable with the fact-dependent and context-sensitive approach [the Court has] prescribed. A court deciding a use-of-force case cannot review the totality of the circumstances if it has put on chronological blinders."

Accordingly, a court cannot "narrow" the totality of the circumstances inquiry to focus on only a single moment. "It must look, too, in this and all excessive force cases, at any relevant events coming before." As a result, the Court remanded the case to the courts below to now consider the reasonableness of the shooting using the lengthier timeframe set forth above. **P&SN**

Larry E. Holtz has served as a Detective Sergeant with the Atlantic City, New Jersey, Police Department; a Deputy Attorney General for the state of New Jersey, and an Assistant County Prosecutor. Presently, Mr. Holtz is a leading author for Blue360° Media, the largest US provider of legal information which is solely focused on serving law enforcement.

Mr. Holtz is a certified police trainer and teaches on a regular basis. He is a member of the bar in New Jersey, Pennsylvania and the District of Columbia and is admitted to practice before the federal bar in the District of New Jersey and the Third Circuit.

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2024 Law Enforcement Officer of the Year

On the afternoon of February 23rd, 2024, Detective Jacob Tri, of the Cascade, Montana Sheriff's Office was on duty and parked near 77 Wexford Lane, in Great Falls, Montana conducting an investigation. As part of the investigation Detective Tri had a search warrant for the residence owned by a female who was the focus of the investigation.

As Detective Tri was waiting for another deputy to assist him with the search warrant execution, he noticed a male, identified as Mike Hanson, approaching his vehicle. Detective Tri exited his vehicle, as it was apparent that Hanson wanted to talk to him.

Hanson asked Detective Tri why he was there, and Hanson was informed that there was a search warrant for the address. Hanson, who is the boyfriend of the female suspect, was upset that law enforcement was there, and was being belligerent.

Hanson walked onto the property and was ordered by Detective Tri to leave the property, as there was a search warrant for the property.

Hanson continued to walk away after being told to leave the property which caused Detective Tri to jump the gate and approach Hanson.

As Detective Tri approached, Hanson reached into his pocket in a quick, threatening manner, as if to grab a firearm. Detective Tri reached for his own firearm, when he saw Hanson had drawn a pistol and was raising it to point at Detective Tri.

Detective Tri had drawn his own firearm to defend himself, however, his firearm malfunctioned, just as Hanson began to shoot at him. Detective Tri cleared his malfunction and returned fire, just as he was struck in the shoulder by a bullet fired by Hanson.

Detective Tri return fire hit the suspect in his chest and neck killing the suspect, thus ending the gunfight.

Detective Tri exhibited exceptional bravery and courage while facing an armed violent, suspect. His actions not only saved his own life but prevented the injury or death of others in the area. As such, it is with great honor and pride that the National Rifle Association names Detective Jacob Tri as the 2024, NRA Law Enforcement Officer of the Year!

Detective Jacob Tri

Cascade, Montana Sheriff's Office

"Detective Tri's unwavering courage and quick thinking in the face of danger embody the highest ideals of law enforcement," said Bob Barr, NRA President. "His swift response to a violent threat, under immense pressure, not only safeguarded his life but protected the community at large. Detective Tri's actions on that day serve as a testament to his dedication and unflinching commitment to public safety. The NRA salutes his extraordinary bravery, and we are proud to recognize him as the 2024 NRA Law Enforcement Officer of the Year."

NRA President, Bob Barr

Forms for nominating candidates for the NRA Law Enforcement Officer of the Year Award may be downloaded at http://le.nra.org/documents/pdf/law/leoy.pdf.

For more information about NRA's Law Enforcement Officer of the Year Award and its Law Enforcement Division, call 703-267-1640 or send an e-mail to LE@nrahq.org.

Teaching Female Law Enforcement Officers How to Shoot

As instructors, it's important to understand the substantial differences in how males and females think and process information.

LARRY J. NICHOLS

Years ago, I was commissioned to instruct actress Debbie Reynolds (1932-2016) on how to handle and fire a Smith & Wesson® Model 15 revolver for a movie she would be starring in as a policewoman. Later, I also taught actress Lucy Liu how to handle and fire an H&K MP5 submachine gun for an action movie in which she would be starring. My primary job was to teach them how to properly handle their prop and skillfully move while firing. My main goal was to make them look professional and great on film. That was the easy part; they would be shooting blanks, so it did not matter if they could hit what they were shooting at or not. And, of course, I had a *great time* working with these delightful ladies. Unlike Hollywood's movie stars, our female officers will need to be taught not only proper safe gun handling and tactical movement, they will also need to be taught the eight fundamentals of marksmanship. After all, they will be shooting real guns loaded with deadly ammunition and they will need to know how to hit whatever they shoot at within a timely manner.

Teaching the Female Mind

As we all know (or should know), males and females are different in mind and body and, as law enforcement firearms instructors, we must teach our students' minds and bodies. The order in which we teach the necessary physical and mental subjects to women must make sense and have a natural progression. When teaching females, and some males, they want to know what it is, what does it do, and why they need to know what it does. Most females are not mechanically inclined, as well as some males. Now, before I get too involved with this subject, we all must have some basic understanding of the difference between the male brain and the female brain. Women are smart and they generally learn very quickly. Once they can mentally see and recognize the order in which essential steps must be taken, they then understand why they must do them in a particular fashion. As instructors, we must realize just how much difference there is between the male and female brain.

Males and females have two brains, a left and a right, with tethers connecting the two. The female brain is designed with several more connectors than the male brain, allowing females to handle some specific

tasks more easily and have difficulty with others. Because of the added connectors in the female brain, most females are better at multitasking than males. Everything a woman sees and hears reaches her brain through an emotional filter. Her emotional filter can have a positive, or a not so positive, effect on her reaction to what you say and how you say it. Therefore, what you say to her and how you say it will have either positive or negative consequences to what you are trying to teach her. Women are more responsive than males to the manner and pitch of our voice, as well as our facial expressions when we are speaking to them.

The male brain is organized in such a way that it gives men an edge in dealing with mechanical devices such as firearms. Overall, men have a greater desire for knowledge and skill at managing and mastering the mechanical world – more so than women do. When a man picks up a firearm, he does not hesitate trying to figure out how it works. A woman will usually want to know what each button or lever does before she attempts to handle the gun. Woman want to feel comfortable with a new firearm before they handle it. She will need to understand how it functions and how to properly maintain the gun before attempting to shoot it. Women are very methodical when executing newly learned physical skills and when expressing themselves to another person.

Women typically seek to fully understand a firearm's functions to ensure comfort and confidence before handling or shooting it.

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Continued from page 17

The way you speak to a female trainee – both in words and tone, along with your facial expressions – can significantly influence how effectively she receives and responds to your instruction.

Firearms Safety

Firearms safety and range safety rules are always first and foremost. Take the time to demonstrate and explain all of the safety procedures and why everyone needs to comply with all of them 100 percent of the time. Everyone must realize there are **no safe guns**, only safe or unsafe people: People make guns dangerous. In reality, there is no such instance as an "accident"; there is only negligence. Someone's negligence is the actual cause of so-called accidents.

The topics and subtopics which should be demonstrated and explained by the instructor as to why the safety rules must be complied with 100 percent of the time are as follows: (1) safe and proper gun handling procedures; (2) range safety rules; (3) safety rules while on duty; and (4) safety rules at home.

Becoming Friends with Her Firearm

It will be advantageous for the instructor to take the necessary time to educate the female officer all about her new friend. The instructor should start with the make, model and action type. He should also clarify the caliber and the proper nomenclature and function of all the external parts of the firearm she will be using. A demonstration of how to fieldstrip the firearm; pointing out all of the safety features designed into it; explaining in detail how they work; and why she needs to know that information will ease the nervousness associated with handling a firearm. Enlightening students about ammuni-

When teaching the physical aspects of marksmanship, instructors must be detailed, organized and patient, clearly explaining both how and why each element should be performed.

tion; its combined parts (bullet, case, powder, primer); how they relate to each other; and what each part does will also assist with putting the student at ease. Providing an in-depth presentation on the cycle of operation of her firearm will help her understand how this mysterious mechanism functions. The cycle of operation of semiautomatic pistols is feed, chamber, lock, fire, unlock, extract, eject, and re-cocking the firing system.

Teaching the Female Body

When teaching the physical components of marksmanship, the instructor must be detailed, organized and patient when demonstrating the elements of shooting. Do not forget to tell your student WHY she must perform each element as instructed. Depending on the organization or the instructor, there are five or more fundamentals of marksmanship. I teach eight – stance, grip, sight alignment, sight picture, natural wobble area, trigger press, breathing, and follow-through.

1. **Shooting Stance:** A position which affords the shooter balance, upper body stability and immediate fluid movement when necessary. When instructing your female officer in the preferred shooting stance, be detailed with your description, your demonstration and your reasons why. I always start with positioning the feet, the knees, hips, back, shoulders, head, and then the arms.
2. **The Firing Grip:** The most important feature of the firing grip is uniformity. The firing grip must be the same on the firearm every time you fire. The firing grip must be forceful, with both hands applying equal pressure, not allowing the handgun to slip in the hands during recoil, and not interfering with the independent movement of the trigger finger. A strong firing grip is critical to ensure the proper functioning of the semiautomatic pistol. Without a solid grip on the pistol frame and locking of the

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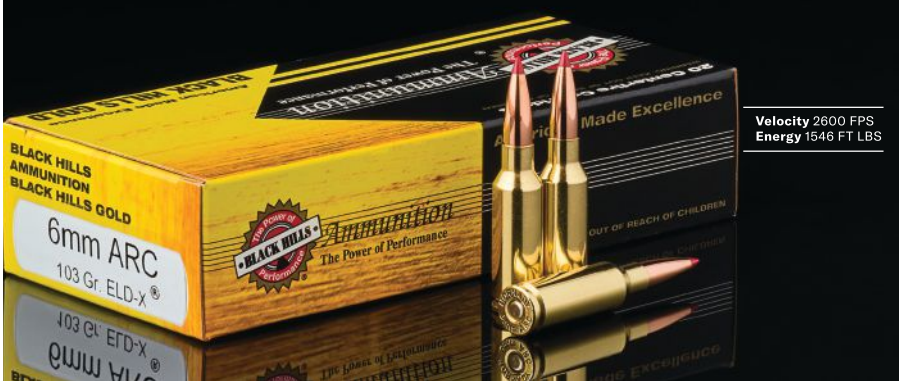

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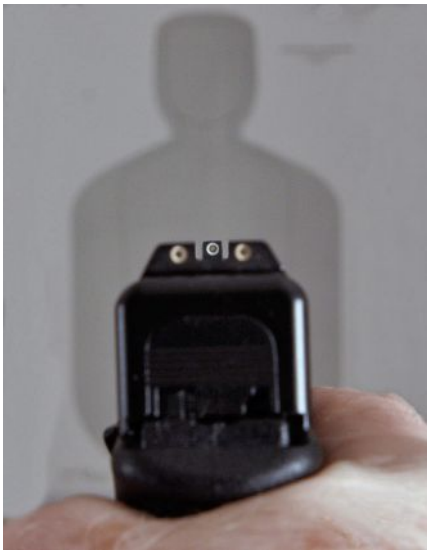
Continued from page 19

wrist, the shooter may induce a stoppage in the pistol. No matter what gripping technique you are teaching, the proper placement of the shooter's thumbs and fingers on the firearm are important. Again, the instructor must be detailed with his/her description and his/her demonstration, along with the reasons why. I normally begin this block of instruction by having my student watch me place my training handgun in my dominant hand, as high as the design of the pistol will allow. I demonstrate and explain the placement of the dominant thumb, trigger finger, middle finger, ring finger, and the little finger. Next, I demonstrate and explain the placement of the support hands, thumb, index finger, middle finger, ring finger and little finger. The heels of both hands should be touching with both hands applying a forceful grip on the pistol and the shooter's body from the diaphragm up pressing slightly into the handgun. The importance of a rock-solid firing grip being applied on the pistol cannot be overemphasized.

3. **Sight Alignment:** Accurate sight alignment is defined as "*the top edge of the front sight level with the top edge of the rear sight, with an equal amount of light on both sides of the front sight, as it appears in the notch of the rear sight. Eyes must be focused directly on the front sight, with the rear sight a blur, and the target not in focus at all.*" Error in sight alignment is the #2 shooter obstacle and the second element most likely to cause a poorly hit and/or missed target. The preciseness of sight alignment will depend upon the size of the target and the distance the target is from the shooter.



Sight alignment errors are the second most common challenge for shooters and a leading cause of missed or poorly placed shots.

4. **Sight Picture:** Sight picture is positioning the correctly aligned sights on a specific spot on the target the shooter wants to hit. The distance the shooter is from the target will determine how much area on the target the front sight will cover. If the target is within six feet, the front sight will cover approximately .330 of an inch, much wider than the width of the typical front sight. At ten yards, the typical front sight will cover approximately .650 of an inch of space on the target. That is why seeing a black front sight at close range on a dark target is very difficult, but slightly easier at a greater distance.

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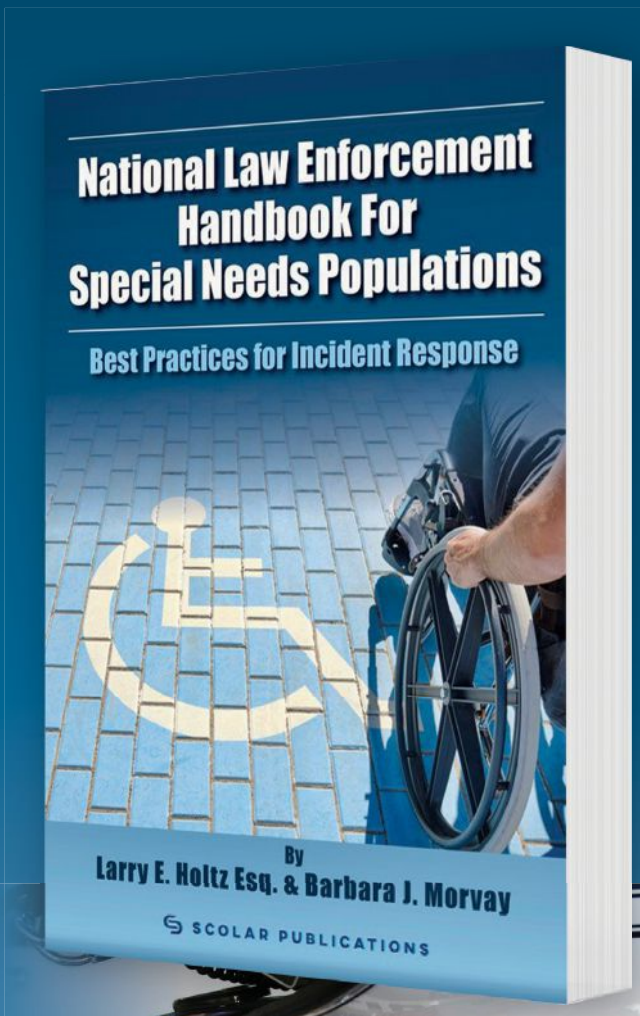
National Law Enforcement Handbook For Special Needs Populations

Best Practices for Incident Response

By Larry E. Holtz Esq. & Barbara J. Morvay

"Encountering A Person With Special Needs Is Virtually Inevitable."

State and federal law now requires law enforcement to be trained on this important topic. To fulfill that mandate, this book is designed to educate law enforcement and other first responders regarding the characteristics of individuals with special needs, so that these officials may recognize the unique behaviors and appropriately and safely interact with them. The suggested methods, techniques and processes explained herein can help determine the basic functional capabilities of a person with special needs. While the strategies may seem simplistic, remember that the measurement of intellectual capacity and emotional intelligence is not an exact science. The methods are meant to be a quick guide to assist the officer in interacting with an individual who has special needs. It is not a measurement device; rather, used as a tool, the book provides, quick references and helpful tips when responding to circumstances involving persons with special needs.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SCOLAR PUBLICATIONS

PUBLISHER: Scolar Publications
PAPERBACK: 440 pages
ISBN-13: 979-8305894400
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Continued from page 22

5. **Natural Wobble Area:** When aiming at a target while looking through the sighting system of a firearm, the front sight post (or red or green dot, or crosshairs in the scope), rotate unevenly across the aiming point of the target. That is called the natural wobble area and cannot be completely stopped by the shooter. Inexperienced shooters find their natural wobble area sizable, moving from side to side in a figure eight pattern across the aiming point on the target. With proper training and practice, the natural wobble area can be reduced in size, but it will never stop. The reason it cannot be stopped is because there are several natural biological functions occurring in our bodies which prevent us from holding a firearm absolutely stationary. To shoot and hit within your natural wobble area, you must focus your eyes directly on the front sight, while looking through the rear sight, or mill dot, while smoothly and continuously pressing the trigger flat and straight back until the handgun fires – **never force the shot**.
6. **Trigger Control (the number one shooter error):** Trigger control is more of a psychological problem than a physical one. The shooter must have control of her emotions before she can effectively control her physical movement. Trigger control is broken down into two phases. First, the independent action of the trigger finger steadily pressing the trigger straight to the rear and follow-through.
7. **Follow-through:** Follow-through is the action of continuing to do what you were doing just prior to the shot being fired. Follow-through is directly connected to proper trigger control and maintaining a firm and consistent grip on the pistol. Becoming proficient with trigger control will require the shooter to control her emotions and the physical tendency to wrench the trigger. As always, the instructor must be detailed with his/her description and demonstration, along with the reasons why.
8. **Breathing:** Proper breathing exercises play an important role in accurate target shooting, as oxygen is needed in the system for the mind, muscles and eyes to function properly. The system I use when teaching new shooters is to take a couple of deeper than normal breaths; an additional breath when bringing the pistol up from a rest position to a firing position; expel the breath about halfway while aligning the sight; hold the breath; and press the trigger. Maintain the shooting position for a few seconds, relax and repeat this procedure for each shot fired.

In conclusion, female officers will hear what you are saying and they will generally do exactly what you tell them to do. Make sure what you said is what you want them to do. Make sure you covered everything precisely the way you want them to respond to your instructions. The instructor must always use the proper terminology and nomenclature when teaching any subject. Never try to "wing" any subject you are teaching. Know the subject matter and be prepared to answer all questions which may result from your training methods. Your students will judge your knowledge of the subject more by what you say and how you say it, than by how well you can perform it. P&SN

Larry J. Nichols retired in 2011 after 27 years of honorable service as the Senior Rangemaster/Armorer for the Burbank (CA) Police Department. He served five years with the Orange County (CA) Sheriff's Department as their Firearms Instructor/Armorer before moving to Burbank, California.

Larry has over 40 years of experience as a professional firearms instructor, with over 31 years as a law enforcement lethal, less lethal and less than lethal force instructor. He is internationally noted for his innovative and pioneering work in the planning, development and implementation of realistic law enforcement firearms training programs. He enjoys receiving feedback from his readers and he can be contacted at gunnyretired@gmail.com.

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NEWS

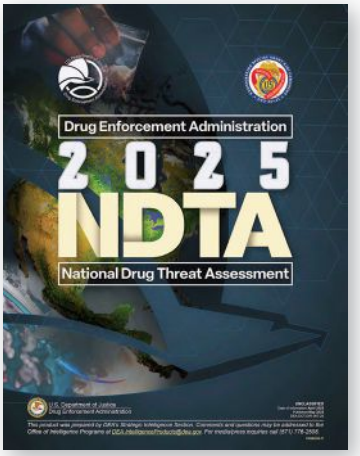
2025 National Drug Threat Assessment

The US Drug Enforcement Administration recently released the *2025 National Drug Threat Assessment (NDTA)*, the DEA's comprehensive review of the threats posed to the United States by deadly illicit drugs and the violent domestic and international drug trafficking organizations responsible for producing and trafficking the drugs poisoning our communities.

In addition to highlighting current trends and emerging threats, this year's *NDTA* includes overviews of the cartels and criminal organizations which were designated as Foreign Terrorist Organizations (FTOs) and Specially Designated Global Terrorists (SDGTs), including the Sinaloa Cartel, Jalisco New Generation Cartel (CJNG), Northeast Cartel, the New Michoacán Family, Gulf Cartel, United Cartels, Tren de Aragua (TdA), and Mara Salvatrucha (MS-13).

Other key findings of note:

- Drug overdose deaths decreased by more than 20% in 2024. October 2024 was the 11th consecutive month in which the CDC reported a reduction in drug-related deaths. This is positive momentum in this fight to save lives; however, with more than 80,000 Americans still dying from drug poisonings and overdose deaths, the synthetic drug threat remains grave.
- DEA laboratories are reporting a downward trend in fentanyl purity. This should not be mistaken for street-level fentanyl being any less dangerous. While purity levels are decreasing, the mixing of fentanyl with animal tranquilizers and other synthetic opioids is on the rise which results in people not knowing the exact composition of what they are consuming or selling.
- The mixing of illicit substances, known as drug cocktails, is becoming more common. Recent data from the National Forensic Laboratory Information System (NFLIS) indicated one in four submissions of cocaine and one in eight submissions of methamphetamine also included fentanyl. This is another indication that the drug landscape is as dangerous as ever.
- Veterinary tranquilizer xylazine remains the top adulterant found in fentanyl powder; however, a more powerful veterinary anesthetic, medetomidine, has emerged in the fentanyl supply – a dangerous development in the fight against fentanyl.
- More than four million youth and young adults (ages 12-20) reported vaping marijuana in the past year.
- Chinese Transnational Criminal Organizations (TCOs) dominate the domestic cultivation and distribution of marijuana, with most grow sites located in states where the cannabis industry is "legal." These Chinese TCOs are producing the most potent form of marijuana in the history of drug trafficking, with a THC content averaging 25-30%.



This edition of the *NDTA* is dedicated to DEA Special Agent Enrique "Kiki" Camarena, who was brutally murdered in Mexico in 1985. In February 2025, the United States secured custody of Rafael Caro Quintero, the man charged in the United States with the torture and murder of Special Agent Camarena. He will now face justice in the United States for his alleged crimes committed on behalf of the Guadalajara Cartel.

The *2025 National Drug Threat Assessment* is available to view or download at **DEA.gov**.

DHS S&T Delivers New Capability for Detecting Presence of Life to Law Enforcement

The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) has delivered the Detect Presence of Life (DepLife™) technology to industry partner MaXentric Technologies LLC. MaXentric will make this first responder solution available to law enforcement agencies across the United States. DepLife enables agents and officers to easily and safely identify whether any individuals are inside a room when direct line-of-sight is not an option.

S&T funded the radar-based DepLife capability and developed it in collaboration with Fort Lee, New Jersey-based MaXentric which is currently producing the first set of commercial units available to law enforcement agencies interested in purchasing them.

"DepLife provides first responders with critical intelligence and situational awareness, while reducing their risk of incurring physical harm," said Acting Under Secretary for Science and Technology Julie Brewer. "This technology could support serving search warrants, searching for trafficked individuals, or even potential hostage situations."

S&T's First Responder Resource Group originally identified the need for a hands-free version of this kind of tool. Commercialization of DepLife follows successful field assessments conducted last fall.

"We engaged with federal, state and local law enforcement agencies over an eight week period to deploy and test DepLife in various operational scenarios," said First Responder Technology Program Manager Anthony Caracciolo. Feedback from the agencies helped S&T and MaXentric fine-tune the tool before placing it in the hands of first responders nationwide.

DepLife will also complement other S&T developed detection and tracking technologies, such as the SDS Outdoor outside gunshot detection system and MappedIn Maker, giving first responders a more holistic situational view so that they can coordinate their plans accordingly.

For more details on how the technology "sees" through walls, as well as additional S&T first responder research and development efforts, listen to the latest episode of S&T's Technologically Speaking podcast with Caracciolo: *There's a Good Chance You're Gonna Save Lives*.

For more information about S&T's innovation programs and tools, visit **https://tinyurl.com/bdcy2ptb**

PRODUCT HIGHLIGHT

FLYING CROSS™

Flying Cross, in collaboration with active duty officer Don Campbell, has introduced the **Lit Safety Vest** – a high visibility garment designed to enhance safety in low light conditions. Motivated by a tragic line of duty incident, Campbell developed the vest with integrated LED technology which actively emits light, making it up to five times brighter than standard reflective vests. Certified ANSI Type P Class 2, the vest features a touch dimmer switch for adjustable brightness; a low-cut zipper to allow unhindered body cam use; and dual mic tabs for operational convenience. Constructed from 100% polyester high visibility mesh with 3M™ reflective tape, it ensures durability and visibility. The **Lit Safety Vest** also includes a USB charger and a storage bag which attaches to a vehicle's passenger headrest for quick and easy deployment. Available in sizes small through 4XL, it's a practical lifesaving tool.

flyingcross.com/LitVest

GALLS/AETCO

GALLS LLC has recently begun offering the **AETCO** line of duty gear for law enforcement professionals. Since 1979, **AETCO Inc**. has been providing high quality leather goods, including key holders, handcuff cases, OC/CS pouches, belt keepers, and more. All **AETCO** products are solely manufactured in the USA. Additional products and styles will be available from the **AETCO** line of law enforcement products shortly.

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Blackinton can incorporate colorful designs on a metal badge without disrupting the detail in the metal. Traditionally, adding color to a metal badge was limited to finishing the surface or adding color within the badges' metal walls. With **Unlimited Coloring**, Blackinton can add unique designs to the surface of a badge economically without the need for a new die.

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As police uniform styles have changed over the decades, uniform hats have not changed. Stratton's **Campaign Style Hat** has been the most popular style for law enforcement officers for over 60 years. The company likes to think "The Look of Authority Starts at the Top." Also, as a great safety issue, the **Campaign Style Hat**'s brim and other hat brim styles are a great way to keep UV rays off the faces of LE officers. The **Campaign Style Felt F-40** is a traditional four dent style, with an extra stiff flat brim. Metallic dyes are used and are capable of withstanding 100 hours of Fade-O-Meter testing.

strattonhats.com

GALLS/MISSION MADE

GALLS, the largest dedicated distributor of public safety apparel and equipment in North America, has recently made additional styles and colors of tactical clothing and gear from the **Mission Made** brand available to the law enforcement community. Included are tactical pants, combat shirts, gloves, belts, multi-tools, and more. **Mission Made**'s clothing is built for endurance, featuring water-resistant materials, reinforced stitching and multi-pocket designs, and is built to be light, agile and suitable for everyday use while retaining tactical functionality.

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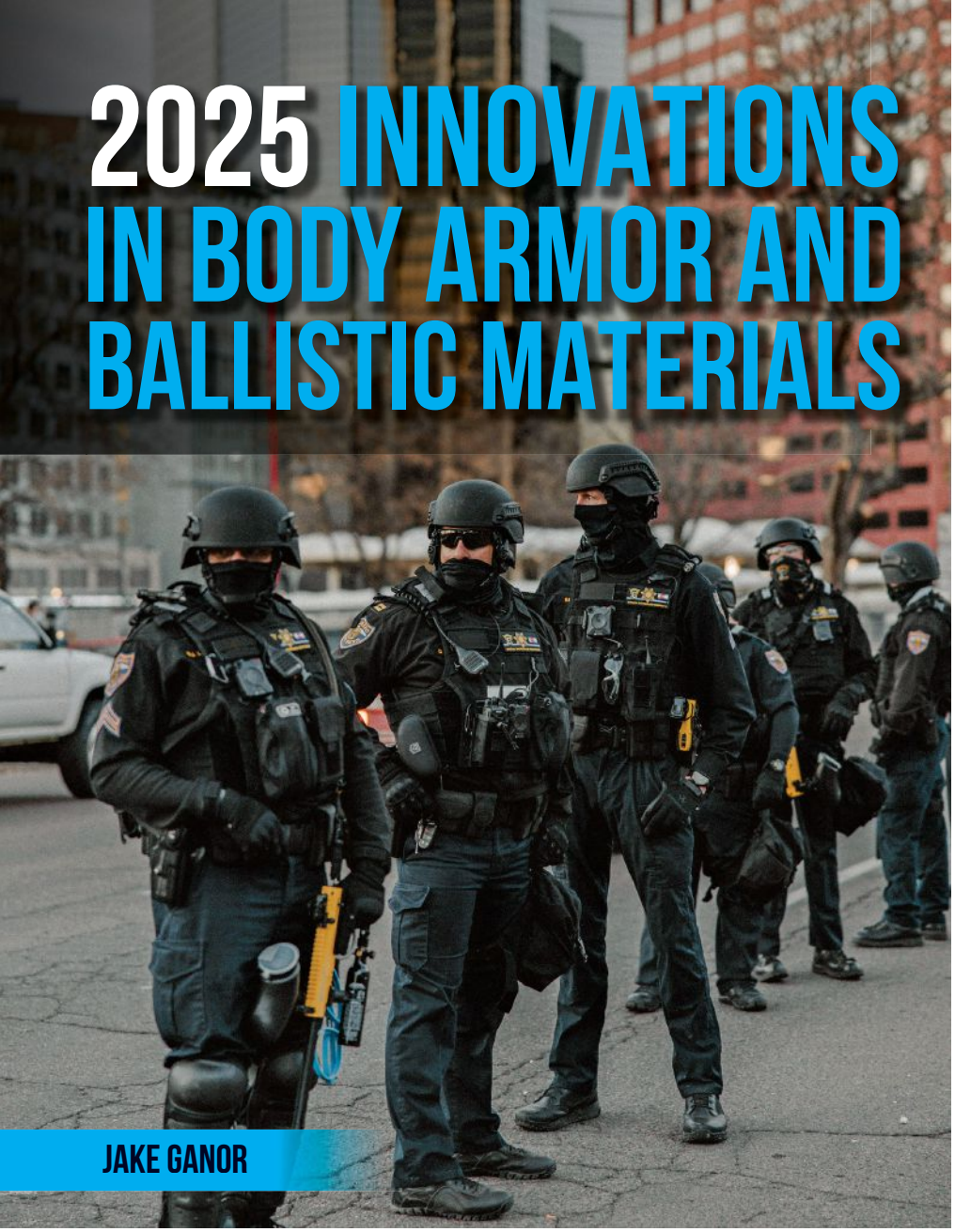
2025 INNOVATIONS IN BODY ARMOR AND BALLISTIC MATERIALS



JAKE GANOR

(Image courtesy of Logan Weaver – Unsplash)

WHAT CUTTING-EDGE DEVELOPMENTS ARE SHAPING THE FUTURE OF BALLISTIC PROTECTION FOR POLICE?

Last year's article, "2024 Innovations in Body Armor and Ballistic Materials," explored three intersecting storylines. First, it chronicled how UHMWPE (Ultrahigh Molecular Weight Polyethylene) composites displaced aramid across vests, plates and helmets, measuring the jump from legacy SK76 fiber to Dyneema® SK99 "Force Multiplier" laminates and attendant weight cuts (e.g., Level III plates falling from 3.3 pounds to 2.4 pounds). Second, it signaled Dyneema's unnamed post SK99 fiber – commercialized later in 2024 as soft armor grade SB301 – as the next leap, promising thinner, lighter, more flexible panels while forecasting sub two pound rifle plates and helmets. Third, it reviewed the NIJ 0101.07 standard which includes removal of obsolete handgun levels; new RF1 RF3 rifle tiers; a validated 7.62x39mm MSC (Mild Steel Core) test threat; and companion 0123.00 threat catalogue. The 2024 article closed by connecting standards to combat realities, particularly in Ukraine's trench warfare demanding near full body fragmentation protection and sparking research which halves frag vest areal density while nearly matching legacy V50 performance.

A year later, we are finding that implementation closely follows the outlined roadmap. Many armor manufacturers have incorporated SB301 material into their current vest layers, seeing ten to 20% weight cuts with no new tooling at all, while plates made from the new hard armor Dyneema grades HB330 and HB332 are dropping below two pounds for the RF1 threat and the same sheets can back ceramic tiles in heavier RF2/RF3 builds. Also, as predicted, NIJ 0101.07 testing is ongoing at accredited labs, with a new Compliant Product List (CPL) scheduled for early 2026. Inspired by the war in Ukraine, many armies now issue broad coverage fragmentation gear using woven aramid to add protection for limbs and groin. In short, last year's predicted gains – lighter fiber, clearer standards and fragmentation focus – are rapidly materializing as commercial vests, plates and full coverage kits reach procurement channels.

So, what's next on the horizon?

The war in Ukraine has led to the development of new ballistic gear like the modular "Russian samurai armor skirt," a protective kilt-style garment which shields the groin, thighs and hips.

ADVANCES IN UHMWPE IMPLEMENTATION

The new Dyneema fiber now in production is more crystalline and highly aligned with fewer defects than its Force Multiplier predecessor, providing a higher strength-to-weight ratio which armor manufacturers can leverage without the need for retooling. Soft armor SB301 drops into the same presses and sewing lines, shaving panel weight, bulk and stiffness. Officers say side panels now overlap more cleanly and hide better under a shirt. Because SB301 uses the same resin, heat cycle and 0°/90° layer layout, factories can treat it as a true "drop in" swap which needs zero reengineering.

Hard armor programs are set to follow the same pattern. Early RF1 plates made

with the upcoming HB series sheets already weigh under two pounds at 10" x 12" – about half a pound lighter than the previous Force Multiplier builds – and simulations hint that high cut helmets under two pounds are within reach. Because the new sheets cure at the same temperature and pressure as SK99, factories only tweak the layer count and edge taper to hit the higher ballistic limits and slimmer profiles. Third generation Dyneema thus delivers drop in weight savings across vests, plates and helmets.

POLYMER ADVANCES

This past January, Northwestern University scientists announced the first 2D "chainmail" polymer – X-shaped monomers mechanically interlocking like microscopic links rather than relying solely on chemical bonds. The network packs 100 trillion mechanical bonds/cm², yielding exceptional strength and tear resistance in thin, flexible sheets. Prof. William Dichtel's team also developed a scalable one pot polymerization method, potentially enabling square meter production versus lab scale flakes.

For armor, interlocking links dissipate energy multidirectionally, offering puncture/stab protection without fabric bulk. Cooling or cross-linking enables impact triggered stiffening – ideal for hybrid plates which flex during movement, but rigidify under impact. Researchers suggest early applications like flexible extremity panels or articulated joints in frag suits – complementing, not replacing, UHMWPE systems. Presently, however, the chainmail polymer is only produced in discontinuous flakes which likely limits its near term use to composite/resin reinforcement – an area where it already shows promise.

ADVANCES IN FRAGMENTATION PROTECTION

The Ukraine war has reshaped protection norms by prioritizing 360° fragmentation coverage over torso-focused rifle plates. Sustained artillery, drones and trench warfare have made Kevlar® lined "kilts," leg guards and extremity armor standard infantry gear. Lightweight ballistic textiles now render such ensembles wearable for extended periods. Line infantry on both sides of the conflict have accelerated this shift through in-theatre R&D – conclusive proof that survivability demands comprehensive fragmentation shielding beyond torso plates.

One example is Adept Armor's Ivoryguard Armorfoam which addresses this need. The new 11mm thin, 0.2 g/cc closed-cell foam integrates high strength fibers in a polyurethane foam matrix, achieving NIJ Level II stoppage plus V50 >950 ft/s against 17-grain fragments at minimal weight. Its sports padding flexibility allows sewing into limb guards, kneepads, elbow pads, or groin aprons without any stiffness penalty. Buoyancy and multihit resilience suit river crossings or trench duty, making it a timely multi-threat complement to Ukraine inspired full frag ensembles.

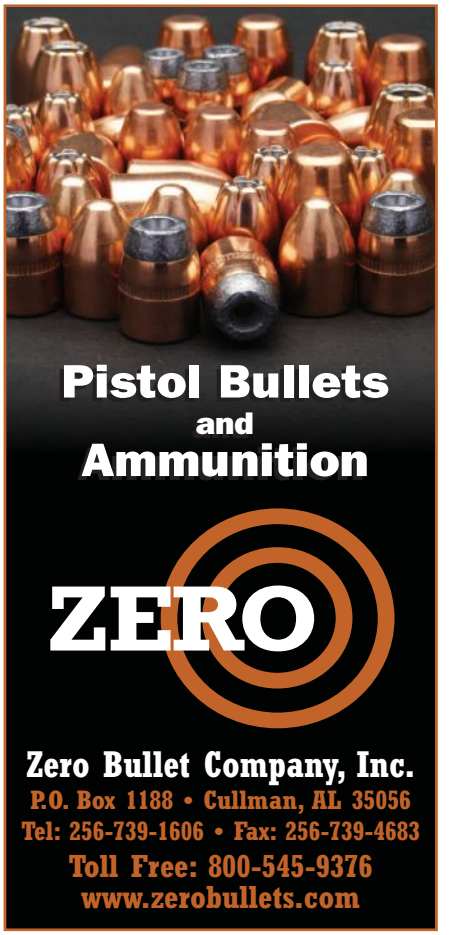
NIJ 0101.07 ROLLOUT

With accredited labs now testing to NIJ 0101.07, manufacturers are redesigning plates and soft panels around updated threats (HG1/HG2 handguns; RF1-RF3 rifles). The spec tightens shot location rules, standardizes 7.62x39mm MSC with Factory 31 cartridges and introduces the 0123.00 catalogue to unify threat definitions across specs. As previously mentioned, the NIJ expects the first .07 CPL in 2026. Leading plate makers are already submitting pre-CPL models.

Along with that, Kevlar EXO™ is also now increasingly available and soft vests made with this new material should feature prominently on the NIJ 0101.07 CPL. P&SN

Also found on the Ukraine battlefield are ballistic leg guards which are made from aramid fibers and protect the thighs and lower legs from shrapnel and small arms fire.

*Jake Ganor is a materials scientist, armor engineer and a designer of ballistic shields. His company, Adept Armor (**ade.pt**), is pioneering next generation armor systems. His book,* Body Armor and Light Ballistic Armor Materials and Systems*, is available on Amazon.*



Ballistic Armor Update: 2025

P&SN Staff

The ballistic protection industry has seen steady advancements over the past year, with new upgrades and design enhancements improving armor effectiveness. Here's a look at some of the latest developments.

Adept Armor

Armorfoam is Adept Armor's new protective material which is a self-bonded hybrid of ultralight Ivoryguard™ elastomer foam with high tenacity ballistic fibers. Weighing only 0.2 g/cc, these flexible pads are lightweight, yet deliver protection beyond what most foams can offer. A 10" x 12" ballistic trauma pad can stop NIJ Level II handgun rounds, capture 17-grain fragments traveling at 950 ft/s, and resist knife and spike attacks. The closed cell structure keeps out water and the material remains durable from -40°F to over 110°F. Built-in buoyancy also makes it ideal for maritime environments.

The Archon is Adept Armor's soon to be released rifle plate which provides genuine armor piercing insurance without weight penalties. Weighing just 5.7 pounds in a 10" x 12" multi-curve cut, this ceramic composite plate is rated to stop 7.62x51mm M993 tungsten core rounds traveling at 3,050 fps – performance which surpasses what most Level IV plates can achieve, regardless of weight. Certification testing to NIJ 0101.07 RF3 is pending, with numbers already exceeding protocol in developmental shoots. Despite its extreme resistance, Archon maintains a full edge to edge strike face and an integral trauma pad for low backface deformation, making it comfortable for patrol carriers and tactical vests alike. (**ade.pt**)

Armorfoam is a new lightweight, flexible ballistic pad which stops Level II handgun rounds and is effective from -40°F to 110°F.

BlueRidge Armor

BlueRidge Armor has recently introduced the VENGEANCE™ X8, a hard armor ballistic shield featuring advanced armor technology.

Tested against a host of standard and special threats including the 7.62x39 Mild Steel Core and Federal Tactical Bonded®, the X8 is BlueRidge's latest offering in ultralight NIJ III ballistic shields.

The X8 XLR makes use of the patented VENGEANCE Series Viewport with its patent pending 100% composite bezel system providing unmatched protection around the face, neck and upper torso.

Standard features include the patented VENGEANCE Viewport and Ballistic Bezel System, available in SLR (Standard Lite Rifle) and XLR (Xtra Lite Rifle) options. It also comes with an ambidextrous weapon mount, a carbon fiber straight bar handle, an impact absorbing arm pad, and an adjustable forearm strap.

Made from high performance composite materials with a durable black or

The VENGEANCE™ X8 is an ultralight Level III+ shield with advanced rifle threat protection and a patented composite viewport system.

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MODELS SHOWN: XLR Series X8 18x30 with top mount LED and 20x34 in upgrade optioned colors Wolf Gray and Coyote. Standard color: Black. US PATENT D857,997 and other patents pending.

MISSION DRIVEN – PURPOSE BUILT

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Continued from page 30

ranger green polyurea finish, the shield is NIJ 0108.01 rated Level III with special threat protection up to Level III+. Optional features include removing the viewport and placard and adding auxiliary lighting. The X8 is available in 18" x 30" and 20" x 34" sizes, with weights ranging from 17 to 23 pounds, based on the specific size and setup. It provides protection against threats like the 7.62x51 M80 FMJ, 7.62x39 PS Ball, and 5.56x45 M193 Ball and Federal Tactical Bonded rounds. (**blueridgearmor.com**)

BulletSafe

BulletSafe's new VP4 Concealable Vest provides discreet ballistic protection with a low profile design which stays hidden under clothing. Its soft edges, comfort flex straps and adjustable hook and loop closures ensure a secure, comfortable fit for extended wear. Made from a flexible nylon-polyester blend, the vest enhances mobility while evenly distributing weight. Equipped with NIJ Level IIIA rated CLS armor, it defends against multiple impacts from pistol rounds up to .44 Magnum.

Also new is BulletSafe's VP4 Advanced Vest featuring Integrated RLA (Reinforced Lightweight Advanced) Armor – a breakthrough in design and high-performance ballistic protection. This kit merges the comfort and mobility of the VP4 Vest with the powerful defense of RLA Armor for a comprehensive solution prioritizing safety and mobility.

The RLA Armor delivers certified protection against pistol calibers up to .44 Magnum, featuring a waterproof soft shell for comfort in various conditions. The armor's strategic design enhances shoulder movement for maximum mobility. (**bulletsafe.com**)

GC USA

GC USA has recently added two new compact models – the Patrol and RF2 – to its lightweight Level III+ GC Shield® lineup.

GC USA's Compact GC Shields offer lightweight Level III+ protection, with the Patrol model under ten pounds and the RF2 rated for M855 rounds.

Measuring 20" x 17", the Compact Patrol Shield® weighs under ten pounds, while the RF2 version, offering added protection against M855 "green tip" rounds, weighs 14 pounds.

With superior edge shot performance, the Compact Shield delivers up to 30% more coverage than standard shields. It can be used alone or linked with other GC Shields using the lightweight GC Connector to create a vertical shield wall for enhanced height protection. (**gc-shield.com**)

Hardwire® LLC

The Hardwire Federal Cut Tactical Shield offers a refined silhouette which enhances firearm alignment, field of vision and maneuverability during dynamic entries.

Available in pistol-rated and rifle-rated configurations (tested per FBI protocol), this shield line offers a variety of accessories while minimizing weight burden. Of particular note, the new Triclops Periscope (2.7 pounds) offers extended view around corners while keeping you covered. The proprietary construction of the shield leverages advanced Ultrahigh Molecular Weight Polyethylene (UHMWPE) composite layers to absorb and dissipate energy efficiently without compromising mobility.

Some of the key features include a Federal Cut Design which blends high threat coverage with improved handling and sight alignment and it's available in three cuts – large rifle-rated, compact rifle-rated and pistol-rated, designed for varied tactical preferences.

Accessory integration includes an Integrated Shield Light; a Weight Distribution System (reduces operator fatigue with kickstand and support strap); Shooting Braces (align with weapon sights); and optional additions include a Triclops periscope, a viewport, a MOLLE patch, nameplate customization, and a carrying case.

Each shield can be tailored to agency preferences. Sizes range from 17.5" x 28" to 20" x 32" and all models include a reinforced ambidextrous handle for rapid deployment. (**https://tinyurl.com/36rc7sky**)

Point Blank Body Armor

Point Blank has recently released its next generation Elite EXO™ soft armor, NIJ certified at Levels II and IIIA for both male and female officers. It is available exclusively to North American law enforcement through Point Blank Enterprises. Made with Kevlar® EXO material, this flexible armor is suitable for a wide range of concealable and tactical applications. It offers enhanced ballistic protection while maintaining mobility and comfort. Designed to closely fit the body's curves, Elite EXO provides a more inclusive fit with low weight and effective protection.

The new FAS G4 is a modular, low profile armor carrier which scales from concealable to full tactical.

Also new is the FAS G4, a modular, low profile armor carrier. Its scalable design allows it to be configured as a concealable carrier or expanded into a full tactical setup. Standard features include laser cut Tank Track™ attachment points for pouches, surface loops for mounting elastic straps and side wing pockets for gear storage. The carrier also incorporates DMS openings for drainage and cleaning, open sides for cable management, and loop areas on the front and back for ID panels. (**pointblankenterprises.com**)

Safariland®

Safariland has recently introduced two new ballistic panels: the SX™ HP and the Hardwire 57.

The SX HP is Safariland's most advanced hybrid ballistic armor to date, offering a 20% reduction in weight and a 20% improvement in ballistic performance. Developed using advanced materials from Avient, Honeywell and DuPont™, it is the thinnest and lightest armor in its class. It is available in male and female unstructured styles, as well as a structured option for women to provide a more tailored fit.

The Hardwire 57 ballistic panel, rated Level IIIA, is a major upgrade from the previous model. It remains the world's lightest ballistic panel and its panel features a stitchless design, shock absorbing layers and high pressure construction reinforced with next generation fiber. (**safariland.com**)

Spartan Armor Systems

Spartan's new Sentinel Tactical Vest is built for everyday duty use, offering handgun protection with factory installed Level IIIA NIJ certified ballistic panels in the front and back. It includes top loading external plate pockets which accommodate 10" x 12" or 9.5" x 12.5" ESAPI rifle plates for added protection when needed. The vest features Rare Earth MagLock closures for quick and easy on/off, along with an elastic cummerbund and split shoulder straps with strong hook and loop adjustment for a secure, comfortable fit. (**spartanarmorsystems.com**)

The Sentinel Tactical Vest offers everyday Level IIIA protection with optional rifle plate inserts, MagLock closures and adjustable straps.

United Shield International

New from USI is the ExPro Covert Ballistic Shield which has been purpose-built for executive protection and low visibility operations. Compatible with Chevy, Ford and GMC SUVs, it features flat, rifle-rated NIJ Level III+ ballistic panels encased in a durable CORDURA® cover. The new shield installs seamlessly behind rear seats without compromising cargo space. Each ExPro set includes three panels – driver's side, passenger side and a center overlap panel – to ensure full ballistic coverage across the rear seat seam. This tri-panel design allows the rear seats to be raised or lowered as needed for additional cargo. The system is quick to deploy and can be customized with optional handles and personalized carry bag designs.

Also new from United Shield is the APL-RF2-350. This Level III+ multi-curve ballistic plate is designed to provide stand-alone protection against a range of high velocity threats. The plate features a proprietary ceramic-based material combined with advanced fiber composites. Despite its strong protection, the plate remains lightweight – just 3.8 pounds for a standard 10" x 12" size – with weights ranging from 2.7 pounds for extra-small to 5.3 pounds for extra-large. (**us.unitedshield.com**) P&SN

USI's new ExPro Covert Shield offers NIJ Level III+ rifle protection for SUVs, with a tri-panel design which installs behind rear seats for full width ballistic coverage.

FORENSIC BREAKTHROUGHS: How AI Is Transforming Evidence Analysis

After a deadly school shooting in November 2021 at Oxford High School in Oakland County, Michigan, AI tools were vital to the investigation and subsequent conviction of the shooter's parents, who had provided their son with the weapon used in the crime.

CARL MAZZANTI

"It was clear to me very quickly that there was this mountain of evidence that may or may not be relevant on the phones that we were not finding...," said Oakland County Prosecutor Karen McDonald. "…There's more here and I want to find it. I want to know." But, she cautioned, "I didn't have the hours or the people to do what the AI-powered tools did… We wouldn't have known things."

Artificial Intelligence (AI) is revolutionizing the field of forensics by transforming the way investigations are conducted. Traditionally, forensic science relied heavily on manual processes and human expertise. Today, AI is helping to enhance the accuracy, efficiency and scope of forensic analysis by rapidly processing vast amounts of data. These advanced algorithms can identify patterns and uncover insights which might otherwise go unnoticed by human investigators, significantly accelerating the investigative process and improving outcomes.

AI has also made a substantial impact in analyzing digital evidence. With the widespread use of devices like computers, smartphones and servers, digital forensics addresses the extraction, preservation and analysis of data from these and other electronic tools. Traditional methods of managing evidence, such as paper-based documentation and physical storage, are no longer adequate. Instead, digital evidence management systems offer a centralized repository for analyzing, storing and organizing all digital evidence, ensuring its integrity and chain of custody.

AI tools are capable of analyzing vast datasets, identifying critical information, and flagging unusu-

al patterns – as demonstrated in the Michigan shooter case. For example, investigators can train machines to learn algorithms to detect patterns linked to fraudulent behavior, enabling them to uncover cybercrimes more effectively and with greater speed. Moreover, AI has proven to be a game changer in the field of image and video processing. Facial recognition technology, powered by AI, can match images of suspects with databases of known individuals, aiding in the identification of perpetrators.

AI algorithms are also capable of analyzing video footage, identifying specific objects such as license plates and other key pieces of evidence. This technology aids in detecting suspicious behavior, tracking movements and reconstructing events. Additionally, AI can tag files with detailed metadata, making it easier to categorize and retrieve information during an investigation. With the help of AI, researchers can now uncover crucial evidence within large datasets in a matter of hours, rather than the days or weeks it once took. Additionally, the process of managing evidence encompasses various stages, from identifying pertinent evidence to redacting private details and categorizing for easier access.

AI is also making significant contributions to forensic medicine and toxicology, both of which play vital roles in the justice system. AI-powered digital tools can assist in crime investigations and help find causes of death.

In determining the cause of death or intoxication, AI algorithms can analyze complex toxicological data, identifying substances present in biological samples. AI tools assist investigators by estimating time and cause of death, identifying injuries and analyzing decomposition, helping forensic pathologists while reducing human error.

AI and Evidence Integrity: Ensuring Trustworthiness in Investigations

AI has clear benefits in forensics. However, using AI also brings up important questions about the integrity of evidence. The reliability and admissibility of AI-detected evidence in courtrooms are critical concerns which must be carefully examined to uphold accuracy in legal proceedings. A major issue is the potential for bias within AI algorithms. Since these systems are trained on large datasets, any bias present in the data may lead to skewed or unfair outcomes.

For example, critics have criticized facial recognition algorithms for exhibiting racial and gender biases which lead to misidentifications and wrongful accusations. To reduce this risk, it is important to train AI systems on diverse and

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FORENSIC BREAKTHROUGHS: HOW AI IS TRANSFORMING EVIDENCE ANALYSIS

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representative datasets. Their performance should also be checked regularly for fairness and accuracy.

Another challenge is the lack of transparency in AI algorithms which are often complex and harder to understand than traditional forensic methods. This makes it difficult for investigators, lawyers and jurors to grasp how evidence is identified and/or interpreted. To address this, researchers are developing explainable AI models which provide clear, understandable reasoning behind their analysis.

The chain of custody is a fundamental principle in forensic science which ensures evidence is properly collected, preserved and analyzed to maintain its integrity. AI systems must adhere to strict protocols to prevent tampering or alteration of the data they process. This includes putting strong security measures in place to prevent unauthorized access. It also ensures that all actions by AI systems are well-documented and can be verified.

AI evidence may include the data and documentation which demonstrate how developers created and evaluated an AI system. Examples include documentation of training data, model architecture, validation procedures, data provenance, and algorithmic explainability.

Cybersecurity: Safeguarding the Digital Realm

The intersection of AI, forensic and cybersecurity is a critical area of focus in today's digital landscape. As AI technologies become more prevalent, they also become targets for cyberattacks. Ensuring the security of AI systems is paramount to maintaining the integrity of forensic investigations and protecting sensitive data.

AI plays a dual role in cybersecurity by both enhancing defenses

and enabling rapid threat detection. Machine learning algorithms analyze network traffic to identify anomalies and unusual behavior patterns which may indicate a cyberattack, allowing security teams to respond swiftly and prevent significant damage.

Conversely, malicious actors can exploit AI to launch advanced cyberattacks or manipulate other AI systems to generate false or misleading outcomes. For instance, attackers can use adversarial examples to trick image recognition algorithms into misclassifying objects, potentially compromising security systems. Defending against such attacks requires a deep understanding of AI vulnerabilities and the development of robust countermeasures.

The integration of AI into cybersecurity also raises ethical and legal considerations. Using AI for surveillance and monitoring should be balanced with protecting individual privacy and civil rights. It is important to set clear rules for using AI in cybersecurity. This will help ensure these technologies are used responsibly and ethically.

The Future of AI in Forensics and Cybersecurity

The future of AI in forensics and cybersecurity is very promising. However, the adoption also brings important challenges which need to be addressed and resolved. As AI technologies continue to advance, their use in forensic science is expected to grow, enabling investigators to solve complex cases with greater accuracy and efficiency.

In the realm of cybersecurity, AI will continue to play a pivotal role in defending against emerging threats. As cyberattacks become more sophisticated, AI-powered tools will be essential for detecting and mitigating these threats in real time. Working together, AI researchers, cybersecurity experts and policymakers will be key. They will create strong strategies to protect digital systems and ensure AI security.

To harness the full potential of AI in forensics and cybersecurity, it is essential to address these challenges through rigorous research, ethical considerations and robust regulatory frameworks. By doing so, we can ensure that AI technologies are used responsibly and effectively, paving the way for a safer and more secure digital future. P&SN

Carl Mazzanti is president of eMazzanti Technologies in Hoboken, NJ, providing IT consulting services for businesses ranging from home offices to multinational corporations, municipalities and police departments.

The Dangers of Circular Reasoning in Police Investigations

EUGENE NIELSEN

Circular reasoning, a logical fallacy in which an argument's conclusion is used as a premise, is especially dangerous in investigations where objective reasoning and evidence-based decision-making are critical.

When circular reasoning infiltrates the investigative process, it undermines the accuracy and fairness of investigations, resulting in flawed conclusions, wrongful convictions and eroded confidence in law enforcement. By understanding this fallacy, its implications and how it can manifest in investigations, law enforcement agencies can take proactive steps to improve their reasoning processes and uphold justice.

At its core, circular reasoning in police investigations creates a self-perpetuating loop in which a conclusion relies on itself for validation. Instead of forming a logical chain of evidence leading to a conclusion, investigators may fall into the trap of assuming the very thing they are trying to prove. This logical flaw not only weakens the integrity of investigations, but can also have far-reaching consequences for the judicial process and public perception of law enforcement.

What Is Circular Reasoning?

Circular reasoning occurs when the premises of an argument are dependent on the truth of the conclusion, rather than providing independent support for it. Essentially, the argument's conclusion is used as evidence for itself, rendering the reasoning invalid. In police investigations, this fallacy can take many forms, often appearing as assumptions, biases or logical shortcuts which distort the investigative process.

For example:

- "The suspect is guilty because they were at the scene of the crime and we know they were at the scene because they are guilty." This reasoning assumes guilt rather than proving it, bypassing the need for objective evidence.

The Investigative Process and Circular Reasoning

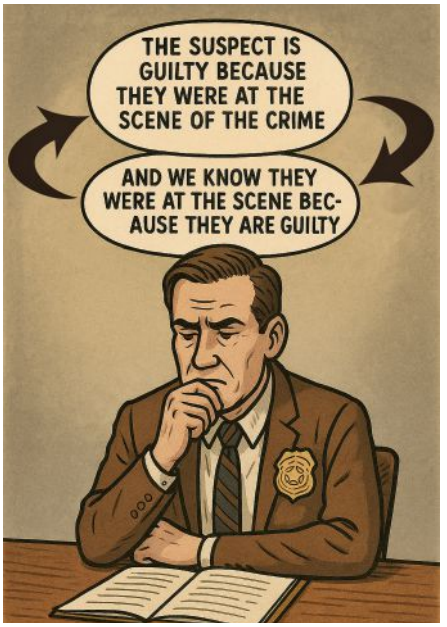
The police investigative process consists of several phases: crime scene examination, evidence collection, suspect identification, evidence analysis, and case presentation. Each of these phases requires logical and unbiased reasoning to ensure the integrity of the investigation. However, the repetitive nature of the investigative process leaves it vulnerable to logical fallacies, including circular reasoning, which can significantly impact the outcomes of cases.

1. **Crime Scene Examination: The Risk of Assumptions**
   The initial examination of a crime scene often sets the tone for the entire investigation. If investigators enter the scene with preconceived notions or assumptions about what occurred, these biases can influence their interpretation of evidence. For instance, an investigator assumes that "this must be a robbery because the victim's wallet is missing." If this assumption shapes the investigation, other potential motives or suspects may be overlooked, even if contradictory evidence emerges. In such cases, circular reasoning reinforces the initial assumption, creating a feedback loop where all evidence is interpreted through the lens of that assumption.

Evidence Collection: Narrow Focus and Tunnel Vision
The evidence collection phase is particularly susceptible to circular reasoning, as investigators may prioritize evidence which aligns with their working theory while disregarding or undervaluing evidence which contradicts it. For example, if investigators believe a specific suspect is guilty, they may focus on collecting evidence which supports this belief (e.g., searching the suspect's home) while neglecting other lines of inquiry. This selective approach not only compromises the objectivity of the investigation, but also increases the risk of wrongful accusations or convictions.

2. **Suspect Identification: The Danger of Preconceived Notions**
   Identifying suspects often involves logical inferences based on evidence and witness statements. However, circular reasoning can infiltrate this phase when assumptions about guilt are used to justify the identification of a suspect. For example, "the suspect was identified because they fit the profile of the perpetrator and we know they fit the profile because they are the suspect." This type of reasoning creates a self-fulfilling prophecy; the suspect's guilt is assumed rather than proven, leading to tunnel vision and the dismissal of alternative suspects.

3. **Evidence Analysis: Misinterpretation and Bias**
   The analysis phase is perhaps the


THE SUSPECT IS GUILTY BECAUSE THEY WERE AT THE SCENE OF THE CRIME
AND WE KNOW THEY WERE AT THE SCENE BECAUSE THEY ARE GUILTY

Circular reasoning in police investigations forms a self-reinforcing cycle where the conclusion is used to justify itself.

most critical stage of the investigative process, as it involves interpreting evidence to draw conclusions about the case. Circular reasoning can distort this phase when ambiguous evidence is interpreted to support an existing theory, rather than being objectively evaluated. For example, a forensic analyst concludes that "the suspect's fingerprints on the weapon prove they committed the crime" without considering alternative explanations (e.g., the fingerprints were left before or after the crime). This type of reasoning undermines the credibility of the analysis and can lead to flawed conclusions which jeopardize the integrity of the case.

4. **Case Presentation: Misleading Narratives**
   The final phase of the investigative process involves presenting the findings to prosecutors, judges and juries. Circular reasoning in this phase can manifest as misleading narratives which rely on assumptions rather than evidence. For example, prosecutors may argue, "The suspect's guilt is confirmed by the evidence and the evidence is credible because it proves the suspect's guilt." Such arguments lack independent validation and can mislead decision-makers, resulting in wrongful convictions or acquittals.

Real-world Examples of Circular Reasoning

1. **Eyewitness Testimony**
   - In some cases, investigators may rely heavily on eyewitness testimony, assuming its credibility without independent verification. For example, "the suspect is guilty because the witness said so and we believe the witness because the suspect is guilty." This type of reasoning can lead to errors, as eyewitness testimony is often influenced by memory biases or external pressures.

2. **False Confessions**
   - Circular reasoning can also play a role in cases involving false confessions. For example, "the confession is valid because the suspect is guilty and the suspect's guilt is proven by the confession." Such reasoning ignores the possibility of coercion, mental health issues or other factors which may invalidate the confession.

3. **Presumed Motives**
   - Investigators may assume a motive based on preconceived notions about the suspect. For example, "the suspect committed the crime because they had a motive and the motive proves their guilt." This reasoning overlooks the need for independent evidence linking the motive to the crime.

The Consequences of Circular Reasoning

The dangers of circular reasoning in police investigations cannot be overstated. When this fallacy infiltrates the investigative process, it can result in:

- **Wrongful Convictions** – Assumptions and biases reinforced by circular reasoning can lead to innocent individuals being prosecuted and convicted.
- **Missed Opportunities** – Tunnel vision caused by circular reasoning can result in missed opportunities to identify the true perpetrator.
- **Erosion of Public Trust** – Flawed investigations which rely on circular reasoning undermine public confidence in law enforcement and

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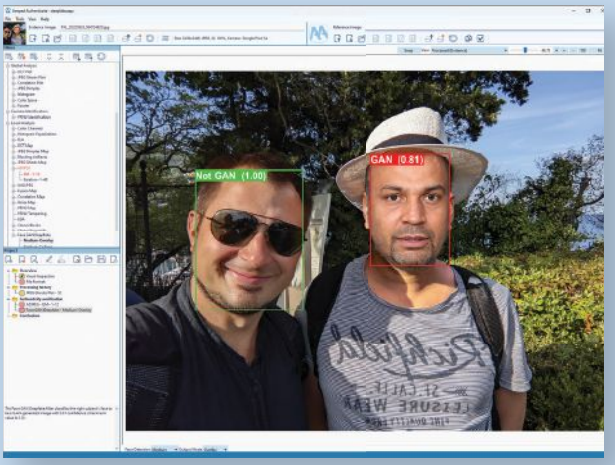

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THE DANGERS OF CIRCULAR REASONING IN POLICE INVESTIGATIONS

Continued from page 39

the justice system.

- **Compromised Justice** – Circular reasoning distorts the pursuit of justice, as decisions are based on assumptions rather than evidence.

Strategies to Avoid Circular Reasoning

To mitigate the risks of circular reasoning, law enforcement agencies can implement the following strategies:

1. **Critical Evaluation of Assumptions**
   - Encourage investigators to question their initial assumptions and seek independent evidence to validate or challenge them.
2. **Broad and Unbiased Evidence Collection**
   - Ensure that evidence collection efforts are comprehensive and consider multiple theories and potential suspects.
3. **Structured Analysis Techniques**
   - Utilize methods such as Evidence-based Investigative Decision-making or Analysis of Competing Hypotheses (ACH) to systematically evaluate evidence.
4. **Independent Reviews and Oversight**
   - Conduct third-party reviews of investigations to identify logical fallacies and ensure accountability.
5. **Training and Education**
   - Provide training for law enforcement personnel on logical fallacies and critical thinking skills to enhance the integrity of investigations.

Conclusion

Circular reasoning is a subtle, yet insidious, fallacy which poses significant risks to the integrity of police investigations. By creating self-reinforcing feedback loops, it distorts evidence interpretation, perpetuates biases and undermines the pursuit of justice. Recognizing and addressing this fallacy requires a commitment to critical thinking, rigorous methodologies and a culture of accountability within law enforcement agencies.

Breaking free from circular reasoning is not just about improving investigative outcomes – it is about upholding the principles of fairness, objectivity and justice which underpin the legal system. By fostering a culture of logical integrity, law enforcement can ensure that investigations are conducted with the highest standards of professionalism and fairness, ultimately strengthening public trust and protecting the rights of all individuals. P&SN

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P&SN Police and Security News
Serving Law Enforcement & Homeland Security

PUBLISHER: Al Menear
ASSOCIATE PUBLISHER: Toni Saturno
MANAGING EDITOR: John G. Stephenson
ART DIRECTOR: Jeanne Daubner
GENERAL MANAGER: Cindie Bonsall
CIRCULATION MANAGER: Bill Zadlo

ADVERTISING:
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145 Main St., Ste. B-1
Pennsburg, PA 18073-1372
Phone: (215) 538-1240
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Police and Security News is published bimonthly by Performance Publishing, LLC, 145 Main St., Ste. B-1, Pennsburg, PA 18073-1372.

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Standard Rate Postage Paid at Bellmawr, NJ (permit #1239).

POSTMASTER: Please send form #3579 to Performance Publishing, LLC, 145 Main St., Ste. B-1, Pennsburg, PA 18073-1372

All subscriptions and editorial should be directed to: Performance Publishing, LLC, 145 Main St., Ste. B-1, Pennsburg, PA 18073-1372

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REAL STORIES OF GENUINE ABSURDITY

The budget cuts are starting to show...

JAMES L. MCCLINTON, PH.D.

In Lone Tree, Colorado, a police officer was busy arresting a suspect in a theft when the perp decided he didn't want to go to jail and first took off on foot before grabbing a nearby motorized scooter. Thinking fast on his feet, the police officer commandeered a kid's bike to pick up on the chase, police said. "The suspect might've had a scooter, but [the police officer] had determination, and a kid's bike," the police posted on social media. The suspect, who had three outstanding warrants, was nabbed and charged with felony theft. (*Dispatch: "3 Adam 22. Update status." BMX cop: "3 Adam 22. SHREDDED IT! Code 4."*)

They must think "oversharing" is a compliment… The California Department of Fish and Wildlife (CDFW) recently settled a case of illegal possession of remains of an endangered species. The investigation began when two plainclothes CDFW officers were on a flight and struck up a conversation with a couple seated near them. The couple admitted to having a green sea turtle skull in their luggage – a species which is endangered and illegal to possess. The couple didn't stop running their mouths there. They went on to brag about having a stuffed mountain lion and a family member's possession of multiple taxidermized mountain lions and wolves. After the plane landed, the officers filed search warrants on the couple's home in Chico, as well as the family member's home in Napa. The searches turned up more illegal species. All three defendants reached plea deals and were convicted of various violations. *(Nothing says "not guilty" like confessing to felonies over in-flight peanuts.)*

"Breaking Bad" *meets* "MythBusters"… The Grant Parish Sheriff's Office in Louisiana said two Colorado men were arrested after attempting to use a cannon to sneak meth and tobacco into a federal prison. The sheriff's office said an investigation led deputies to learn the suspects from Greeley planned to use a compressed air cannon (a device which is commonly used by sports teams to send T-shirts into the stands) to launch $112,000 worth of tobacco and $89,500 worth of meth into the prison. The cannon, which can shoot items 350 feet into the air, would launch the items over the federal prison's security fence and onto prison grounds. The two suspects are facing charges of attempting to introduce contraband into a penal institution and attempting to distribute methamphetamine. (*A couple of nuclear rocket surgeons, no doubt*)

It doesn't take an "eggs-pert" to see that it wasn't some practical "yolker"… As of this writing, Pennsylvania police are still "scrambling" to identify who "poached" about 100,000 organic eggs from a Pennsylvania producer. Police estimated the "current" street value of the eggs at $40,000 (though that figure could change based on fluctuating prices). Investigators say an organic egg farm was victimized when one of its distribution trailers was burglarized. Pennsylvania State Police officials have asked the public to contact them with any information about the theft or who might be trying to fence 8333 dozen eggs. (*I wonder if they'll ever be able to "crack" this case.*)

She never was good with numbers… Before heading off to drug rehab, a 41-year-old Florida woman allegedly decided to score some narcotics for the road. So, she texted her dealer that she had $45 to spend and wanted to buy "a couple of points" of fentanyl which is "drug speak" for the 1/10th of a gram increment. She identified herself and arranged the drug transaction. After she drove to meet her dealer in Panama City, she was confronted by police and arrested. It was then that she realized she had mistakenly contacted a cop, not a criminal. She had been texting with an investigator with the Bay County Sheriff's Office, having saved the cop's number (under his initials) in her phone after a "previous interaction." She told police the officer's initials were "similar to her drug dealer's" which caused the mix-up. A search of the woman's car turned up a variety of drug paraphernalia, some of which tested positive for the presence of fentanyl. She was charged with one felony and two misdemeanors. (*PSA: Label your contacts carefully…especially if they sell fentanyl or arrest people.*)

"Ocean's Two: Dumb, Wet and Caught"… Police in Jefferson County, Washington, described a burglary which ended up with two arrests and a sunken getaway vessel. It began after a homeowner called 911 over what he said was the theft of about $11,000 worth of gold and jewelry from a storage container. He told authorities that the thieves were a man and woman dressed in black who left the scene in an SUV with covered license plates. Deputies in Kitsap County eventually found the flipped over SUV which had crashed, but the suspects had by then fled on foot. Deputies tracked them down with a drone and quickly spotted them in a stolen rowboat on Port Gamble Bay, trying to row away using makeshift paddles, including a piece of plywood. The rowboat soon began to flood with water, "forcing the suspects to swim back to land and right into the hands of deputies," who arrested them. (*You know it's a bad heist when your getaway car is a leaky skiff and a piece of plywood.*)

Stay tuned, I suspect we'll hear from him again in the not too distant future… A 12-year-old boy from Grand Traverse County in Michigan has been charged with joyriding, operating a motor vehicle without a license, carrying a concealed weapon, and possession of marijuana. The boy's parents contacted the county sheriff when they realized their 2000 Chevy Blazer was missing, saying their son had taken it. They had tracked his progress south into Clare County, where deputies were alerted to be on the lookout. By the time the lad was stopped, he had driven more than 90 miles; officers found a 12-gauge pump-action shotgun and ammunition, along with a little weed. He did tell deputies he was unhappy at home. (*Apparently,* Grand Theft Auto *isn't just a video game.*) P&SN

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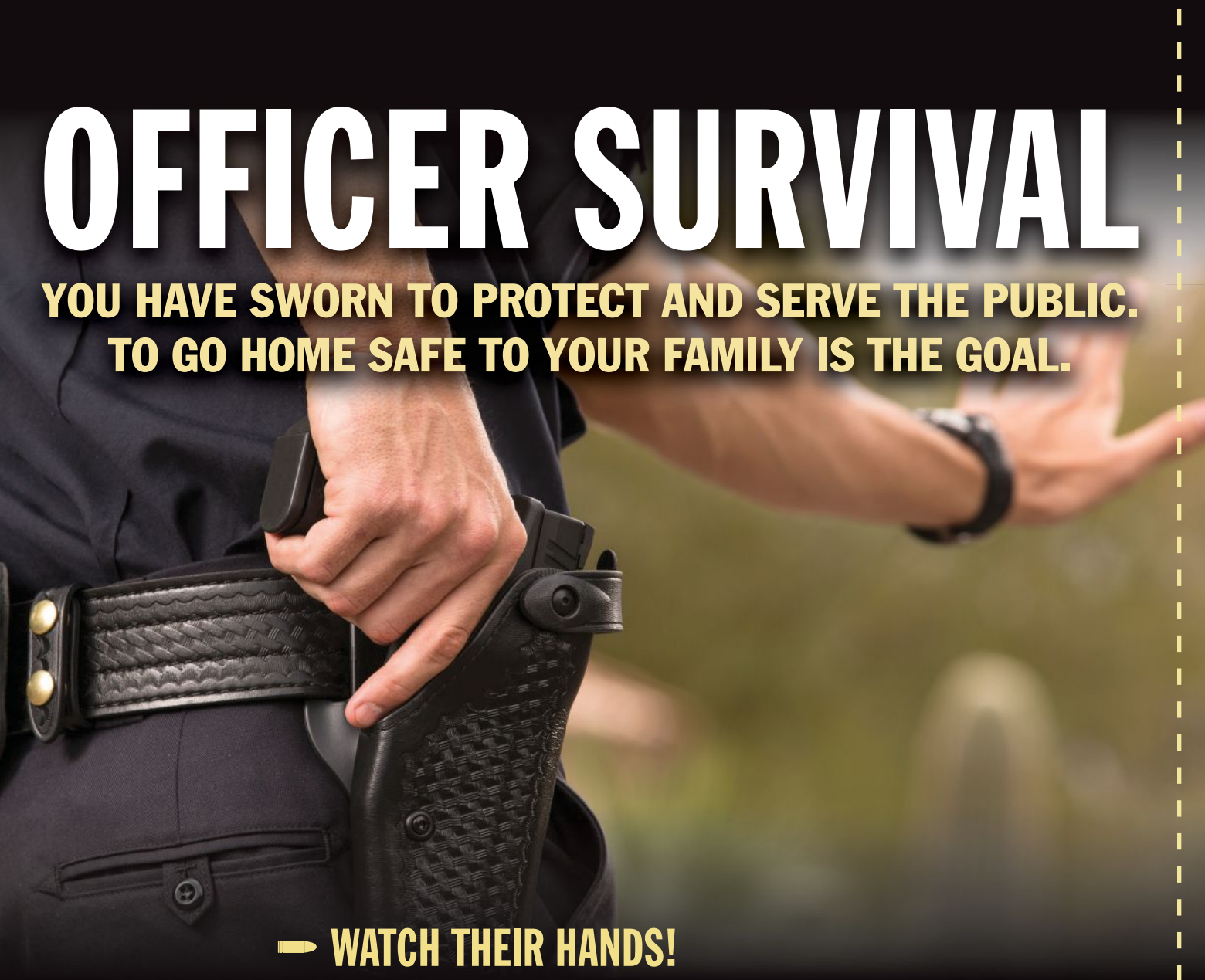

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